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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,072	11/15/2001	Kiyoshi Okamura	108915-00003	9487

7590                    06/18/2003  
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EXAMINER	
WYROZEBSKI LEE, KATARZYNA I	
ART UNIT	PAPER NUMBER

1714

DATE MAILED: 06/18/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/926,072	OKAMURA ET AL.
	Examiner Katarzyna Wyrozebski Lee	Art Unit 1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5	6) <input type="checkbox"/> Other

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 8 and 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 9 contain limitation "derivative", which is indefinite since it does not specifically describe the thermoplastic polymer utilized in the composition.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-220524 in view of Kawabata (US 4,442,140).

JP '524 discloses composition comprising anatase type titanium oxide having particle size of less than 50 nm, organic solvent and wax such as polyethylene wax.

The coating was applied to the substrate and left for 20-30 minutes to dry. The coated substrate was then subjected to tests.

The difference between the present invention and the JP '524 are the amounts of the components utilized in the composition, and which amounts will still allow formation of protective coating. The difference is also in addition of water and silicone.

The example (Table 1, col. 7-8) of the prior art of Kawabata discloses protective coating composition comprising:

Oxygen containing wax in amount 8.3-20 wt % (oxidized polyethylene wax)

Silica or silicon containing additive in amount of 6-25 wt %

Titanium oxide in amount of 4-10 wt %

Water in amount of 62.9-77.5 wt %

The coating was applied to the substrate by spraying (col. 12, line 66) and dried in the oven to form a film. The coated substrate was then subjected to the tests. The silicones the prior art of Kawabata utilizes are in liquid form; therefore they can also be viewed as solvents.

The compositions that utilize anatase type of titanium dioxide have good oxidation properties. In addition, lower amounts of the components are still able to form a film that will be capable of protecting covered surface.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize smaller amounts of the coating composition, since such amounts would still allow formation of the protective coating and such coating would still function properly. With respect to addition of water to organic solvent as long as they are miscible would be obvious. It is well settled that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Linder* 457 F.2d 506,509, 173 USPQ 356, 359 (CCPA 1972).

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-220524 in view of Kawabata (US 4,442,140) as applied to claims 1-12, 14 above, and further in view of EP 913 447.

The discussion of the disclosure of the prior art JP '524 and Kawabata from paragraph 6 of this office action is incorporated here by reference.

The difference between the present invention and the prior art JP '524 and Kawabata is addition of surfactant.

The prior art '447 discloses composition for coating, which comprises titanium dioxide, film forming polymer and surfactant. Surfactant includes anionic surfactants, nonionic surfactants as well as cationic surfactants (page 8-9, [0060]).

Surface active agents are customary additives in coating composition, since they alter the properties of the coatings such as surface tension.

In the light of the above disclosure it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize surface active agents in composition of JP '524 and Kawabata and thereby alter the properties of the coating composition such as surface tension. Such addition would not affect chemical properties of the composition and its ability to coat surfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (703) 306-5875. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*Examiner signature*  
KIWL  
June 11, 2003